

Yumiko KATSUKAWA, *et al.*
Serial No. 10/588,199
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REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested.

In response to the rejection of claims 5-9, 12, 13 and 15-17 under 35 U.S.C. §112, 2nd paragraph, the claims have been reviewed and amended above so as to place them in more traditional U.S. format and/or to improve grammar or translation to English. Included in these amendments are amendments which more accurately describe the section controlling pressure changes or flow rates, etc. For example, following the Examiner's suggestion, the control section is now explicitly recited as part of independent claim 1.

Accordingly, all formality-based objections/rejections are now believed to have been overcome in the applicants' favor. If the Examiner believes there are any continuing formality-based issues, then it is respectfully requested that the undersigned be telephoned for prompt resolution.

The rejection of claims 1-4 under 35 U.S.C. §102 as allegedly anticipated by Rolando '503 is respectfully traversed – as are the rejections of claims 10-11 under 35 U.S.C. §103 alleging "obviousness" based on the same single Rolando reference and the rejection of claims 1-9 under 35 U.S.C. §103 as allegedly being made "obvious" based on Ahn WO '926 in view of Trenary '130 – and the rejection of claims 12-17

under 35 U.S.C. §103 as allegedly being made “obvious” based on Rolando in view of Pisani ‘447.

As the Examiner will note, independent claim 1 has also been amended so as to incorporate limitations from original claim 13 requiring, *inter alia*, that the foot-front water jetting section continuously jets water. Claim 1 also now requires movement of the water-jetting section in a longitudinal direction of the foot with jetted water passing, in turn, through portions where skin receptors exist and portions where no skin receptors exist at the front-foot area, thereby causing skin receptors to be intermittently stimulated.

Among other things, applicants’ invention takes advantage of the fact that, at terminal portions like the foot, receptors exist differently in lateral and longitudinal directions and, by arranging water arrival points in the lateral direction, skin receptors can more efficiently sense differences in water-generated stimulation in the water-jetting zone. See, for example, applicants’ specification at page 18, lines 16-21.

Claim 1 also requires that water jetted from the foot-front water-jetting section partially abut the foot in a longitudinal direction. That is, the foot-front water-jetting section is configured to continuously jet water with a jetting width such that a part of the foot in a longitudinal direction receives jetted water. See, for example, the arrangement shown in Figs. 3, 5, 11, 16, 17 and 21 – and corresponding text in the specification.

As described in the specification (e.g., page 1, first paragraph; page 7, lines 3-6; and page 20, line 25 to page 21, line 1), applicants' exemplary embodiment is configured to provide a foot water-jetting device in which the various skin receptors existing on the foot-front intermittently receive stimulation, so that an adaptive lowering of sensitivity is reduced and a more comfortable feeling can be obtained.

As described in the specification (e.g., see page 20, line 25 to page 21, line 1, and page 30, line 26 to page 31, line 2), a foot water-jetting device is provided in which the respective skin receptors receive intermittent stimulation, so that dulling of reaction due to adaptation effects can be effectively reduced.

With the amended claim 1, a device having unexpected results can be obtained. For example, the foot water-jetting device is configured so that the foot-front water-jetting section continuously jets water with a specified jetting width that partially abuts the foot in a longitudinal direction and the control section controls the water-jetting section direction moving mechanism such that the foot-front water jetting section, while jetting water is moved, in turn, along the longitudinal direction of the foot from a toe side to an ankle side. The jetted water passes, in turn, through portions where receptors exist and portions where many less receptors exist at foot front, whereby receptors are intermittently stimulated.

The receptors constituting cutaneous senses are densely arranged in a short axial direction of the foot, while roughly (sparsely) arranged in a long axial direction of

the foot. In a case where the water-jetting section is moved in a short axial direction of the foot at which the receptors are densely arranged, there is created an unfavorable state where some of the receptors are always (normally) stimulated, so that an adaptation effect (with respect to the stimulations) would occur in a short time, whereby it would become impossible to achieve a lasting and sustained comfortable feeling.

On the other hand, in the presently claimed invention, where the water-jetting section is moved in a long axial direction of the foot at which the receptors are sparsely arranged, the jetted water passes, in turn (one-by-one) through portions where receptors exist and portions where many less receptors exist at foot front, whereby there is created a favorable state where any one of the receptors is not stimulated continuously. Further, the water-jetting position is moved, so that the receptors arranged in different positions are stimulated one-by-one. As a result, not only is each of the receptors stimulated, but also the different receptors are stimulated in turn so that an adaptation effect with respect to the stimulations can be further reduced and a more complicated, various skin feeling can also be realized.

Furthermore, a jetting width of the water jetted from the foot-front water jetting section is limited so that the jetted water partially abuts the foot in a longitudinal direction, whereby it becomes possible to stimulate different receptors one-by-one.

Still further, since hot water is continuously jetted, the foot can be sufficiently warmed and blood circulation can be effectively promoted, so that it becomes possible to obtain an improved massage effect.

Rolando discloses an automatic foot washing apparatus comprising a foot-front water jetting section 143 for spouting the water to a front side of a user's foot.

However, the foot-front water jetting section of Rolando is used only for washing the foot. Therefore, the foot-front water jetting section 143 is configured to have a plurality of water nozzles that are densely arranged and the water jetted out from the nozzles abuts an entire surface of the foot in a longitudinal direction.

In the presently claimed invention, the water jetting width with respect to the longitudinal direction of a user's foot is intentionally limited to be narrow so as to more effectively stimulate different receptors one-by-one.

Ahn, Trenary and Pisani also fail to teach or suggest the claimed invention. Even if all these references are "combined", the applicants' claimed structure cannot be found. For example, none of these references discloses (or suggests) a possibility of combining their technical features so as to establish a foot-front water jetting section while jetting the water is moved, in turn, along the longitudinal direction of the foot from a toe side to an ankle side, and/or wherein the jetted water passes, in turn, through

portions where skin receptors exist and portions where relatively fewer (e.g., no) skin receptors exist at foot front – whereby the skin receptors are intermittently stimulated.

The Examiner asserts that it is merely ordinary and well-known for a skilled person to movably arrange jetting nozzles.

However, in the presently claimed invention, the jetting nozzles are not merely arranged so as to be movable, but the moving of the nozzles is strictly defined and require to obtain peculiar effects. Namely, the claimed invention can achieve unexpected results such that a complicated stimulation can be imparted to the skin receptors, and sensibility loss due to adaptation effects with respect to the stimulations can be effectively reduced or prevented – all while more remarkable massage effects can be achieved.

The term “complicated stimulation” does not mean a conditional state where the receptors always accept stimulation, but rather that a state where the jetted water does not intentionally abut the receptor. Namely, an important structure for realizing desired effects is that the different receptors are intermittently stimulated one-by-one (in turn).

As already mentioned, the relevant skin “receptors” are densely arranged in a foot-width direction (short axial direction), while the receptors are sparsely arranged in a foot longitudinal direction (long axial direction). Therefore, when the water jetting section is moved in a width direction, some of the densely arranged receptors always

receive stimulation, so that a user always feels stimulation and lowered sensibility can be caused by adaptation effects.

To solve this problem, the applicants move the water jetting section in a longitudinal direction of the foot where the receptors are sparsely arranged. Due to the claimed structure, although water is continuously jetted, it nevertheless becomes possible to stimulate different receptors, one-by-one, and it also becomes possible to effectively prevent lowered sensibility caused by the adaptation effect.

Amended claim 1 clarifies the claimed structure as one causing different receptors to be stimulated one-by-one, the water jetted from the foot-front water jetting section being jetted with a narrow jetting width so as to abut a part of the foot in a longitudinal direction.

Unlike the presently claimed invention, in the case of Rolando, the water jetting section is formed to have a large size and an entire foot-front inevitably receives the jetted water. Therefore, even if the water jetting portion of Rolando is moved in a longitudinal direction of the foot, the different receptors cannot receive stimulation one-by-one – and thus Rolando cannot provide the desirable effects of the presently claimed invention.

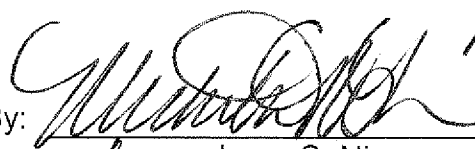
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Given such fundamental deficiencies of all of the cited references with respect to the above-discussed aspects of amended independent claim 1, it is not necessary at this time to detail additional deficiencies of the cited references (whether taken alone or all in combination with one another) with respect to other aspects of the rejected claims. Suffice it to note that, as a matter of law, one cannot support a *prima facie* case of anticipation unless the single cited reference teaches each and every feature of each rejected claim – and, similarly, one cannot support even a *prima facie* case of “obviousness” unless the cited references in combination at least teach or suggest each and every feature of each rejected claim.

Accordingly, this entire application is now believed to be in allowable condition, and a formal notice to that effect is earnestly solicited.

Respectfully submitted,

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